

**REMARKS**

With this amendment claims 1, 3-11 and 13-32 remain pending. Claims 2 and 12 are cancelled. All pending claims stand rejected.

Claim 1 is amended to incorporate the limitations of claims 2 and 12 depending from claim 2. Independent claims 14 has been amended to now depend from amended independent claim 1 and to eliminate a separate step. Independent claim 23 is amended in a similar way to remove a similar step. Claims 3-6, 8-11, 15-17, 19, 29 and 31 are amended to remove reference numerals, to conform to antecedent basis in view of the amendments of claims 1 and 14 and cancellation of claims 2 and 12, or both. Claim 26 is amended to change dependency.

**Claims 1-12, 14-17 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sims (US 6,657,616 B2) in view of Ohara et al (US 5,485,176 hereinafter "Ohara").**

New claim 1 is based on original claim 12 independent form. Claim 12 was rejected on the ground that Ohara shows that column and row conductive lines are separated by an insulative sheet (citing Figure 2, element 52). The rejection of original claim 12 is traversed for the following reasons.

The primary reference cited in these rejections is Sims. It is implicit in the rejection that Sims itself does not teach the provision of the lines being separated by an insulative sheet. It is respectfully submitted that Sims teaches the use of conductors "in spaced, interdigitated alignment with one another on a (or the) substrate...." (Sims Abstract lines 5-7; col. 1 lines 58-60 and 2 lines 6-8 and 28-30 in the invention summary; and each of the three independent claims 1, 17 and 18. See also the Detailed Description where it is also referred to in slightly different language at col. 3, lines 4-6.) This is contrasted by Sims with the prior art "(c)onventional capacitive touch sensing systems" which are "often implemented by the deposition of opposing conductive key pads to opposite sides of a dielectric element." (Sims col.

1, lines 16-23) The Sims system with spaced, interdigitated aligned conductors on the substrate is supposed to be an improvement over those deposited on opposite sides of a substrate.

Ohara discloses entirely different sensor systems, an electromagnetic induction system that is not finger touch or finger presence responsive, an optical system that appears would be finger presence responsive and an ultrasonic systems that is not, requiring the use of an ultrasonic generator and sensors. Only the electromagnetic inductive system has multiple electrodes arranged in horizontal and vertical directions (Ohara Fig. 2). However, it is also clear from that figure that signals are transmitted on both sets (horizontal and vertical) of conductors and that the system further requires the use of a signal receiving stylus (68). The fact that crossing conductors are shown with such a different system is neither a teaching nor a suggestion that it would work with the inventive keyboard of Sims.

A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). Here Sims, the primary reference, discloses a distinctly different structure. The structure of crossing conductors in Ohara is disclosed only with use of a different electrical sensing system that is not finger presence responsive. Furthermore, Sims expressly criticizes, discredits, or otherwise discourages the solution claimed at Sims, col. 1, lines 15-31. Accordingly, Sims teaches away from the claimed invention. *See In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Furthermore, it is submitted that the proposed modification or combination of the prior art would change the principle of operation of Sims, the prior art invention being modified. Accordingly, the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

The rejection of claim 5 is further traversed on the grounds that the cited references each lack any disclosure of “an output switch circuit ....receiving ... the coupled RF signals ...

(and) sequentially outputting the RF coupled signals according to the predetermined output sequence.”

The rejections of claims 6-9 and 29 are further traversed on the ground that neither reference teaches or suggests a bandpass filter as claimed. The mere fact that bandpass filters are well known and even that it would have been obvious to one of ordinary skill “to use such filter depending on the application” does not provide a teaching or suggestion that the claimed invention is such an application.

The rejection of claim 11 is further traversed on the ground that neither reference teaches or suggests the 18 VAC RF signal amplitude as claimed.

**Claims 13, 18 and 19 are rejected as unpatentable under 35 U.S.C. 103(a) over Sims in view of Ohara in further view of Inoue et al. (US 5,831,600 hereinafter “Inoue”).**

First, the examiner’s assertion that the Inoue “coordinate input device comprising a computer and CPU ... inherently includes a microcontroller” is traversed as unsupported.

Next, the rejections of claims 18 and 19 are further traversed as unsupported. There is no Figure 6 in Inoue and neither the cited Col. 7, 27-38 nor anything else in Inoue says anything about selecting “as a probable user input a single probable human finger presence from a plurality of human finger presences detected simultaneously by the scanning circuit” as set forth in claim 18 or “a single most northern possible human finger presence as the probable user input” as set forth in claim 19 depending from claim 18.

**Claims 20-28 are rejected as unpatentable under 35 U.S.C. 103(a) over Sims in view of Ohara in further view of Mulligan et al. (US 2003/0103043 hereinafter “Mulligan”).**

The examiner’s reliance upon Mulligan is traversed. The present application claims priority from US Application No. 60/290,444 filed May 11, 2001 through International Application No. PCT/US02/14745. US Application No. 60/290,444 predates the filing of Mulligan and describes in the paragraph spanning pages 3-4 and in the penultimate paragraph of

page 10, the use of multiple algorithms to select one point among multiple sensed human finger presences. None of the rejections of claims 20-28 are based upon prior art.

The rejections of claims 24-26 and 28 are further traversed on the grounds that they identify specific criteria not disclosed or suggested by Mulligan for selection of one human finger field entry among a plurality as the probable user section.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 50-1017, under Order No. 209968.0119/23U1 from which the undersigned is authorized to draw.

Dated: 1 Dec. 2008

Respectfully submitted,

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